

ABSTRACT

BALANCE CLIP FOR REDUCING FRICTION DURING CLIP ADJUSTMENT IN SPINDLE MOTOR AND HARD DISK DRIVE BALANCE PROCESS

[0029] A balance clip in a hard disk drive spindle motor facilitates improved disk pack balance correction. The balance clip has one end that is offset from the semi-circular shape of the body of the balance clip. The offset end is located opposite the precise bent tab that provides tooling engagement in the balance clip. The offset end of the balance clip is offset at a radius that is less than the radius of the balance clip, or at a pre-determined, lesser radial offset from the original circular shape. Consequently, the cross-sectional edge of the clip at the offset end does not make contact with the surface of the groove in which the balance clip is seated. This design eliminates scratching between the offset end and motor hub, and thereby greatly reduces friction and particle generation during clip adjustment in the disk pack balancing process.